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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,217	03/31/2006	Claus Augenstein	016906-0480	7917

22428 7590 12/28/2007
FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

WALBERG, TERESA J

ART UNIT	PAPER NUMBER
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3744

MAIL DATE	DELIVERY MODE
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12/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/574,217

Applicant(s)

AUGENSTEIN ET AL.

Examiner

Teresa J. Walberg

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-21 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/31/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The present abstract should be amended to remove phrases such as "the invention relates to" and legal phraseology such as "said" and "comprises".

2. The disclosure is objected to because of the following informalities: The disclosure should be amended to remove references to specific claim numbers in the specification, since the claims are subject to being amended or renumbered.

Appropriate correction is required.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 4, 6, 10, 11, 19, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Buchanan et al (US 6,212,982).

Buchanan et al disclose a heat exchanger (Fig. 16) for use in motor vehicles (see abstract) including tubes (22) having tube ends and fins (26) arranged between the tubes (Fig. 16), at least one laterally arranged header box (28), the header box having a bottom with openings for receiving the tube ends (Fig. 16), a cover (Fig. 16), and an inlet or outlet connecting pipe (30), the heater box being capable of having been at least partially produced by internal high pressure forming of a metallic semifinished product (Fig. 6), where the semifinished produce could be a rolled aluminum sheet or an extruded aluminum tube (col. 5, lines 42-44), the cover and the bottom being a single piece (Fig. 7) and are connected to the connecting pipe (30) with a cohesive material joint, the header box having at least one open end surface which is closed by a cover which is capable of being soldered into place (Fig. 16), the openings in the bottom being capable of being produced by punching (Fig. 11), the connecting pipe being arranged laterally on the header box (Fig. 16). Note that product by process limitations in an apparatus claim are considered to be met if the apparatus could have been made by the listed process, whether it actually was or not.

5. Claims 1, 5, 10, 12, 19, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Fischer et al (US 2002/0066553).

Fischer et al disclose a heat exchanger (Fig. 2) for use in motor vehicles (see abstract) including tubes having tube ends and fins arranged between the tubes (Fig. 2), at least one laterally arranged header box (Fig. 1), the header box having a bottom with openings (14) for receiving the tube ends (Fig. 1), a cover (46 in Fig. 2), and an inlet or outlet connecting pipe (36, 38), the heater box being capable of having been at least partially produced by internal high pressure forming of a metallic semifinished product (Fig. 1), the cover and the bottom being a single piece (Fig. 1), the cover and the connecting pipe being a single piece that could have been produced by IHF (Fig. 1), the header box having at least one open end surface which is closed by a cover which is capable of being soldered into place (Fig. 2), the connecting pipe being arranged laterally on the header box (Fig. 1). Note that product by process limitations in an apparatus claim are considered to be met if the apparatus could have been made by the listed process, whether it actually was or not.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2 and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al (US 2002/0066553).

Fischer et al discloses a heat exchanger having the claimed structure with the exception of the cover being welded to the bottom and the bottom portion having a specified amount of curvature. Fischer et al disclose a cover separately produced and then secured to the bottom (Fig. 5), but do not appear to state how the parts are secured together. Welding is a conventional method of fastening together metal parts. It would have been obvious to one of ordinary skill in the art to use welding to fasten together the metal part of Fischer, the motivation being to produce a strong and leak-proof connection. It would have been obvious to one of ordinary skill in the art to use any desired amount of curvature of the bottom portion of the housing based on the proportions of the other parts of the device and the pressures at which the device was intended to be used.

8. Claims 7, 8, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al (US 2002/0066553) in view of Heine (DE 19953785)(cited by applicant).

Fischer et al discloses a heat exchanger having the claimed structure with the exception of the connecting pipe being bent or curved and the housing having a longitudinal bead. However, Heine discloses a heat exchanger having a connecting pipe which is bent or curved (see the pipes in Figs 1 and 2) and a housing having a longitudinal bead (see bead shown along the top of housing 13 in Fig. 6). It would have been obvious in view of Heine to providing a bent or curved connecting pipe for the heat exchanger of Fischer et al, the motivation

being to enable easier connection of the device, and to provide the housing with a longitudinal bead, the motivation being to strengthen the header.

9. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bretl et al and Higgins are cited to show heat exchanger manifold structure.

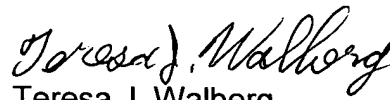
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa J. Walberg whose telephone number is 571-272-4790. The examiner can normally be reached on M-F 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Teresa J. Walberg
Primary Examiner
Art Unit 3744

/tw/